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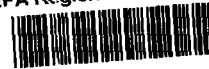
Attorneys at Law

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August 12, 1999

Mr. Siraj Ahmed
Remedial Project Manager
United States Environmental Protection Agency
Region 5, SR-6J
Chicago, IL 60604-3590

EPA Region 5 Records Ctr.



379576

Re: Granville Solvents Site

Dear Mr. Ahmed:

Enclosed please find three copies of revised text for the Engineering Evaluation/Cost Analysis for the Treatment of Impacted Soils at the Granville Solvents Site. The appendices to the report have not changed from the July, 1998 submission, and therefore, are not included in this packet. In addition, I have enclosed three copies of the Granville Solvents Site PRP Group's written response to USEPA's June 21, 1999 comments to the Engineering Evaluation/Cost Analysis. The written response references the specific changes to the Engineering Evaluation/Cost Analysis.

Per your instructions, one courtesy copy of each document are also being sent to Michael Anastasio and Fred Myers of Ohio EPA.

It is my understanding that this submission addresses all remaining questions concerning the treatment of impacted soil, and the proposal is now ready to go through the public participation process. If my understanding is incorrect, please contact me. Of course, should you have any questions, please do not hesitate to call.

Sincerely yours,

Ben L. Pfefferle III
Chairperson, Granville Solvents
Site PRP Group

BLP:cjc

Enc.

cc: Michael Anastasio, Esq., w/enc.
Fred Myers, w/enc.
Technical Committee, w/enc.
Gerald Myers, w/o enc.

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**GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION/COST ANALYSIS
RESPONSE TO COMMENTS
FROM THE UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
DATED JUNE 21, 1999**

EPA's comments on the above are reproduced in bold type, followed by the PRPs responses in standard type.

1. **3.3 DETERMINATION OF REMOVAL ACTION GOALS**

(INSERT THE FOLLOWING SENTENCE IMMEDIATELY PRECEDING THE EXISTING TEXT)

The removal action goals include continuing to halt the migration of groundwater contamination toward the Village of Granville Municipal Wellfield and reducing the levels of groundwater and soil contamination to no further action levels as required by the administrative order.

RESPONSE:

1. The proposed language will be included as requested.

2. **3.4 DETERMINATION OF REMOVAL ACTION OBJECTIVES**

(REPLACE EXISTING TEXT WITH THE FOLLOWING)

The proposed removal action objectives are as follows:

- Continue to operate the groundwater extraction and treatment system to prevent the migration of groundwater contamination beyond extraction well EW1 toward the Village of Granville municipal wellfield to reduce the levels of groundwater contamination to approved no further action levels, and to treat and discharge said water in compliance with applicable standards.
- Enhance and continue to operate the groundwater extraction and treatment system and treat impacted soils, to reduce permanently the levels of contamination in impacted soils to levels below the Soil Treatment Goals listed in Table 3-1, to reduce permanently the levels of in impacted groundwater to levels such that MCLs are not exceeded beyond EW1 and to treat and discharge said water in compliance with applicable standards.

- **Revise and continue to conduct monitoring/sampling to monitor performance of the groundwater extraction and treatment system and soil treatment system and to confirm attainment of the proposed removal action objectives.**

RESPONSE:

2. The proposed language is somewhat ambiguous when compared to the AOC and other discussions in this document. The language proposed includes the methods to be used to achieve the objectives. As part of the process of developing the EE/CA, objectives of the removal action are established, void of preconceived or predetermined solutions.

From a practical matter, groundwater extraction and treatment has been in use for several years to meet certain elements of the AOC and may be reasonably expected to play a key role in the final remedy. However, this is made clear in the appropriate sections of the document. For example: Section 1 -Executive Summary; Section 3.2 - Determination of Removal Action Scope, paragraph 1, item 1 and item 3; Sections 4.1.2 through 4.1.5, paragraph 2 in each section; Tables 4-2 through 4-6; and Section 5 - Recommended Removal Action Alternative, paragraph 1).

As an alternative to providing methods in this objectives section, the following language is proposed:

"The proposed removal action objectives are as follows:

- Prevent the migration of groundwater contamination exceeding action levels beyond extraction well EW-1 toward the VOG municipal wellfield.
- Reduce levels of groundwater contamination to approved no further action levels such that MCLs are not exceeded beyond EW1.
- Treat and discharge groundwater extracted from the aquifer in compliance with applicable standards.
- Treat impacted soils to the extent necessary to assure that the levels of those contaminants for which Soil Treatment Goals are listed in Table 3-1 do not exceed MCLs in groundwater beyond EW1.
- Revise and continue to monitor performance of the groundwater extraction and treatment system and soil treatment system to confirm attainment of removal action objectives."

3. 3.5 DETERMINATION OF REMOVAL ACTION SCHEDULE

(REPLACE EXISTING TEXT WITH THE FOLLOWING)

The proposed schedule for the removal action is presented in the following table.

Activity	Number of Calendar Days Following Completion of Previous Activity
1. Submit final proposed EE/CA to EPA	0
2. EPA publishes notice of EE/CA and commences public comment period	NA
3. EPA holds public meeting to receive oral and written comments	N/A
4. EPA issues written responses to all significant comments and a final determination on selected alternative. EPA provides notice to the PRP Group	N/A
5. The PRP Group submits a draft design document to attain the removal action goals and objectives, including any proposed studies, construction specifications, revised groundwater extraction and treatment system operating parameters, revised soil and groundwater monitoring/sampling programs, and schedules	30
6. EPA issues comments to the PRP Group on the draft design document	N/A
7. The PRP Group submits a revised design document incorporating EPA's comments	45
8. EPA approves acceptable revised design document and provides notice to the PRP Group	N/A
9. The PRP Group Commences implementation of removal activities in accordance with the approved design	To be determined
10. For design and implementation elements, including proposed work schedules, that must be deferred to a later date because further information is needed, steps 5 through 9 are repeated until the removal action goals and objectives are achieved	To be determined

RESPONSE

3. Because the GSS PRP Group currently plans to conduct a field-scale pilot test of the proposed technology the following is proposed as an alternative to the EPA-proposed schedule.

"The proposed schedule for the Removal Action is presented in the following table."

Activity	Number of Calendar Days Following Completion of Previous Activity
1. Submit final proposed EE/CA to EPA	0
2. EPA publishes notice of EE/CA and commences public comment period	NA
3. EPA holds public meeting to receive oral and written comments	N/A
4. EPA issues written responses to all significant comments and a final determination on selected alternative. EPA provides notice to the PRP Group	N/A
5. The PRP Group submits a draft Pilot Test	30
6. The PRP Group conducts a Pilot Test of the selected removal action	60
7. The PRP Group submits a Pilot Test Report to EPA	60
8. The PRP Group submits a draft design and construction document that shall include proposed studies, construction specifications, revised groundwater extraction and treatment system operating parameters, revised soil and groundwater monitoring/sampling programs, and schedules.	60
9. EPA issues comments to the PRP Group on draft design document	N/A
10. The PRP Group submits a revised design document	60
11. EPA approves acceptable revised design document and provides notice to the PRP Group	N/A
12. The PRP Group commences implementation of the removal activities in accordance with the approved plan	To be determined

4. **4.0 IDENTIFICATION AND ANALYSIS OF REMOVAL ACTION ALTERNATIVES**

(INSERT THE FOLLOWING SENTENCE IMMEDIATELY PRECEDING THE LAST SENTENCE IN THIS SECTION)

The Soil Treatment Goals are listed in Table 3-1.

RESPONSE:

4. The text has been modified as suggested.

5. **4.1.2 Alternative 2 - Soil Removal Action Alternative**

(INSERT THE FOLLOWING SENTENCE IMMEDIATELY PRECEDING THE LAST SENTENCE IN THE SECOND PARAGRAPH IN THIS SECTION)

This enhanced groundwater extraction treatment system will continue to be operated until the removal action goals and objectives are achieved. It is anticipated that ... (connect to beginning of last sentence of paragraph).

RESPONSE:

5. The following text has been inserted immediately preceding the last sentence in the second paragraph in this section:

"The groundwater extraction and treatment system shall continue to be operated until the removal action goals and objectives are achieved. It is anticipated that....." (connected to last sentence of paragraph)

6. **Sections 4.2.1.2 through 4.2.1.5**

In all of these subsections, replace "Remediation Goals" with "the Soil Treatment Goals listed in Table 3.1".

RESPONSE:

6. The term "Remediation Goals" has been replaced with "the Soil Treatment Goals listed in Table 3.1" in the referenced sections.

7. **5.0 RECOMMENDED REMOVAL ACTION ALTERNATIVE**

(REPLACE TEXT WITH THE FOLLOWING)

Based on the comparative evaluation of effectiveness, implementability and cost above, the recommended alternative is Alternative 4. As discussed above, this alternative consist of treatment of soils by pneumatic fracturing and soil vapor extraction, and the enhancement and continued operation of the groundwater extraction and treatment system to attain the Removal Action Goals and Objectives as set forth in Section 3. This alternative also includes continued monitoring/sampling to confirm attainment of the proposed removal action objectives. Operation of the groundwater extraction and treatment system, including EW1, shall not be modified or ceased without prior written approval of EPA, and shall at all times ensure that MCLs are not exceeded beyond extraction well EW-1.

RESPONSE:

7. The text has been modified as follows:

"Based on the comparative evaluation of effectiveness, implementability and cost above, the recommended alternative is Alternative 4. As discussed above, this alternative consist of treatment of soils by pneumatic fracturing and soil vapor extraction, and the enhancement and continued operation of the groundwater extraction and treatment system to attain the Removal Action Goals and Objectives as set forth in Section 3. This alternative also includes continued monitoring/sampling to confirm attainment of the proposed removal action objectives. "

ADDITIONAL MODIFICATIONS:

Based on previous discussions and further requests by the U.S. EPA during the meeting held in Chicago on June 14, 1999 with the U.S. EPA, the following changes to the text have been made regarding ARARs:

Section 4.2.1.4, EFFECTIVENESS-Overall Protection of Human Health and the Environment, first paragraph, second sentence

"Pneumatic fracturing and SVE treatment would effectively reduce the migration of soil contaminants into groundwater; permanently remove contaminants from the soil (within an estimated 5-year period); comply with ARARs and the AOC requirements;..."

Section 4.2.1.4, EFFECTIVENESS-*Compliance with ARARs and Other Criteria, Advisories, and Guidance*, third paragraph, second sentence

"Successful application of pneumatic fracturing and SVE treatment and continued extraction and treatment of groundwater are expected to comply with ARARs and the AOC requirements including the requirement that soils..."

Section 4.2.1.4, IMPLEMENTABILITY-*State Acceptance*, first paragraph, first sentence

"State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with the ARARs and AOC requirements and anticipated overall protection..."

Section 4.2.1.4, IMPLEMENTABILITY-*Community Acceptance*, first paragraph, first sentence

"Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with the ARARs and AOC requirements and anticipated overall protection..."